

PCN PRO-TEST PERIPHERALS

Memotech's disk drive system could make all the difference between a competent home micro and a business-like workhorse. It turns the MTX 512 into a CP/M system, and home users will be attracted to its potential for program development under assembler conditions.

The FDX is impressive in its matt black aluminium cabinet. It measures 19 by 11½in and, though large by normal standards, should look equally well in the home or on an executive's desk.

The front panel houses two disk drives, labelled B and C, the on/off switch, and the fan outflow grill. All necessary input/output connections are neatly tucked away on the back panel. These include 16-colour RGB and composite (B/W) video outputs and single channel sound. There are three slots on the back for future add-ons: two are for extra disk drives, 5¼in and/or 8in, and the third for bus expansion. To the left is a low voltage power output allowing the computer to draw its power from the drives.

Inside the FDX disk system are the 80-column card, floppy disk controller, and space for up to four of the MTX Silicon (fast access RAM) disks. These can be used to simulate CP/M drives A to M and, when fitted, are treated as physical drives.



The rear of the MTX 512 showing the ribbon cable for connection to the FDX disk drives.

If the system is bought as an add-on, as was the review model, the RS232 communications board needs to be fitted into the computer, which is a straightforward ten minute job, following the instructions.

In use

The 80-column card gives a choice of two character sets and a 64 element graphic set, all obtained from the keyboard by pressing a combination of keys. In addition there is a teletext character set that can be used from within programs. This 80-column card is a sophisticated piece of hardware, and was a dream to use.

On power up, the FDX carries out a RAM check and, on insertion of the system disk, boots up the system. The VDU now displays the configuration of the disk drives, top of available RAM etc. Physical drive B is mapped onto logical drive A to give the normal 'A>' prompt.

It is possible for drive A to be mapped onto any of the physical drives so that the bootstrap PROM can boot from any of the installed drives. If the carriage return is

M · T · X Gets Serious

The FDX disk drives made Keith Hook's MTX 512 into an attractive CP/M system.



pressed immediately after switch on, the machine goes into 'input mode'. This mode can be used to set up a number of boot-up options from the keyboard. The FDX system was very reliable and the visual displays were clean with good colours. Routing the composite video output through a video recorder and into a Sony television gave remarkable results.

Software

Three pieces of software are bundled with the FDX: a CP/M 2.2 system disk, a Supercalc spreadsheet, and the New Word word processor. The CP/M system disk is a standard version with a few customised commands for setting up and controlling the RAM disks tacked onto the rear.

New Word appears to be a modified version of Wordstar tailored for the Memotech's keyboard. Memotech is adamant that the few bugs in the review version have been fixed.

Documentation

Three of the manual's four sections cover the software packages. The fourth, on technical aspects of the machine, is well documented though it fails to cover the layout of the screen configurations.

The visual display system built into the 80-column board is powerful and complex. It contains 2K×16-bit words of memory — each of the 1920 (80×24) character locations has one 16-bit word associated with it.

Two character generator PROMs are provided, one for the Alpha characters and one for the bit mapped Graphics characters, each containing 256 shapes. The 16-bit character word associated with each shape contains two pieces of information; the most significant eight bits refer to the character number, the least significant eight bits refer to the attributes that control the display of the character.

The CP/M is dealt with on a step by step basis with details of each command. The manual does not delve deeply into the Editor, Assembler and Debugger commands, but specialist books are available.

Verdict

These drives are good, especially for the price, though MTX Basic is sadly not available under FDX. Memotech hopes to remedy this but until it does the user is left with the outdated MBasic.



The back of the FDX shows the expansion slots and the fan inflow grille.

Name FDX disk system (for the Memotech MTX512) **Price** £870 inc carriage **Manufacturer** Memotech Microcomputers, Station Lane, Witney, Oxon. Tel: 0933 2977.

The Alpha PROM divides into three parts. The first section contains the 96 standard characters, the second contains 96 alternate characters, and the final 64 characters are special graphics symbols. The Graphics PROM contains all 256 possible combinations of the eight pixels making up a graphics character.

Characters are printed to the display using the appropriate control and escape codes for colour, attribute, and character set selection. Since the attribute byte has different effects according to whether the display is monochrome or colour, it is possible to get underlining, bright characters, and reverse video instead of colours.